

PHILOSOPHICAL TRANSACTIONS.

For the Months of *December, January, and February, 1678.*

The Contents.

Anatomical Observations of an Abscess in the Liver, &c. Of four Ureters, &c. in an Infant. Observations Di. Anthonii Leewenhoeck, de prognatis & Semine genitali Animalculis, &c. The Art of Refining. An Account of the English Allum-Works. Of the English Green-Copperas-Works. Of the Salt Waters of Droytwich in Worcestershire. The Description, Culture and use of Maiz. An Account of the manner of making Malt in Scotland. An Account of a Book written lately by Sir George Ent, entitled 'Αντιστάσεις five Animadversiones, &c.

Anatomical Observations of an Abscess in the Liver; a great number of Stones in the Gall-Bag and Bilious vessels; an unusual Conformation of the Emulgent and Pelvis; a strange Conjunction of both Kidneys; and great dilatation of the Vena Cava, communicated by Edw. Tyson A.M. and M.S. Oxon.

THE *Anatomic* of morbid Bodies, as Dr. Harvey hath observed, is most instructive; thereby we are acquainted not only with the many Causes that oppress Nature, but likewise with the Liberty she often takes in forming the parts different from her usual Rule; our present subject affords both. For on September 14th. 1678. opening the Body of a Reverend and worthy Clergy-man of this City (where were
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present likewise Dr. *Page*, Dr. *Morton*, Dr. *Wittie*, Dr. *Darel*, &c.) we observed the Liver to be very large and fastened to the *Diaphragm* more then usually; the *Colon* so firmly joyned to the Liver near the Gall-Bladder, that I could not separate it without Incision. The Gibbous part of the Liver towards the right side, appeared discoloured, where making an Incision there plentifully issued out a perfect *Pus*, very fetid; as likewise there did from a wound I made in its Cavous part near the Fissure. This purulent Matter I found not contained in any particular *Cystis* or Bag, but in several *Sinus's* in that part of the Liver; whereas the other parts seemed sound and well coloured. Nor did I meet with any where any Tubercules, Glandules, or Schirrhus.

This Abscess may well be presumed the Cause of that lurking Fever that took off the Patient; he labouring under it about six weeks, yet without much Complaints of sickness, but troubled with irregular heats, yet sometimes such as were imperceptible to himself: twice or thrice, but at great distances, he had paroxysms of Chill fits like an Intermittent Fever, but such a *fetor* and dryness in his Throat as proved obstinate to all Medicines. His approaching Death was attended with other symptoms that usually follow the affection of the Brain and *Genus Nervosum*. Formerly he had been often subject to the Yellow Jaundice; and 'tis well worth the enquiry, why at present nothing thereof appeared? since the Gall Bladder was not only filled and crammed with Stones, but likewise the *Meatus Cysticus* and *Ductus Communis* even to the *Duodenum*, were very much extended with them, as likewise in the *Forus Biliaris* I met with several small ones. There was no fluid Gall contained in the Bladder, but some that was soft, of a deep yellow Ochre colour that filled up the Interstices of the Stones. These Stones were of a various bigness, from that of a large Nut, or Nutmeg, to a Pepper-corn: their colour was of a darkish yellow Ochre, although in some there appeared *Lamina* of a browner colour: to the touch, when a little dry, they seemed soapy; their weight was light, and their scent very fetid, resembling that of the purulent matter in the Liver. Their consistence was friable; their figure for the most part Triangular, or inclining to that figure, but all Angular; that side towards the Gall Bag was protuberant and con-



vex, the other two sides were flat; so that having the lesser Angle towards the Center of the Cavity of the Gall Bag, like so many wedges, they more compleatly filled it : I numbred I think above thirty.

Whether their Triangular figure be from the shooting of any Salts in the Gall, or from any other Causes, tis hard to determine. But I do suppose 'twill be found that they usually affect this figure ; as in some others I have by me, taken out of the Gall-Bladder of a Woman at *Oxon* some years ago, do more plainly appear, which are also light, do feel soapy, consist of *Laminae*, are of a whitish colour, not ill scented as the former, and of a triangular figure.

Our enquiry thus far had informed us of the Cause of the Patients Death, as well as of his former illness, and frequent disposition to the Jaundice. But prosecuting our search we were more surpris'd, to observe the unusual structure and conjunction of both Kidneys, the *Parenchyma* of the one being continued over the *Spine* unto the other, so that they both made but one continued semilunary Body. This although rare, yet hath been sometimes observed by former Authors. *Schenckius* mentioneth from *Casper. Wolphius* that *Rondeletius* formerly observed but one Kidney in an Humane Body, *qui formâ Lunari erat, ambo nimirum simul conjuncti*. *Caspar Bauhinus* in his *Theatr. Anatom.* hath given a figure of such a Kidney. But that which *Bartholin* describes in *Hist. Anatom. Cent. 2. Hist. 77.* comes much nearer our subject, although in several particulars different, as will appear by his Cut there, or as tis added by *Blasius* in his Appendix to *Bellinus, de structura & usu Renum*.

The Kidneys here were large, that part that conjoyneth them and lay over the *Spine*, was something lesser then the true Kidney's, and in its outward Tunicle or Membrane had three seams, although that *Parenchyma* inwardly seem'd not to observe such a division, but was the same with the substance of the Kidney's. The Emulgent vessels were very numerous ; for besides two larger veins that were subdivided into several lesser ramifications, there were divers other that were single, even to their insertion into the *Vena Cava*. The middle Part likewise by which both Kidneys were conjoyned was plen-

tifully provided with Blood vessels, for it received from the *Aorta* two Arteries, which before their insertion, were each subdivided into three branches; and it sent out two veins, which being joyned afterward into one, entered the *Vena Cava*. Besides at the Seam at the lower part of the left Kidney, it had a Vein and Artery, which afterwards inserted themselves into the *Iliac* branches of the *Aorta* and *Cava*, so that Nature though erring from her wonted Rule in forming this part, yet was provident in furnishing it with Vessels. But to the whole *Compages* of the Kidney's, there belonged only two Ureters, but the great dilatation of the *Pelvis* in each was remarkable; for that of the left Kidney when blown up, was larger then it is represented in the figure, and had a triple origination; The right had but a single one and was less.

Whether this Conformation and structure of the Kidney's and its Vessels were of much inconvenience to the Patient, I shall not define; but am apt to think, that it might occasion as well the great dilatation of the *Vena Cava*, as also of the *Pelvis*: for the middle part conjoyning both the Kidneys lying over the *Vena Cava*, by its weight pressing thereon, would hinder the free return of the Blood, which yet would make room for its self, by enlarging its own Channel, which was so capacious as to contain three or four of my fingers. So likewise the *Ureters* running over that part that conjoyns the Kidneys like strings over the Bridge of a Viol, in some Position of the Body they might have their passage so streightned, that the Urin being impeded and regurgitating, might swell and stretch the Membrane of the *Pelvis* to this greatness.

The Explication of Fig. 1. Tab. 1.

- A.* The right } Kidney.
- B.* The left }
- C.* The middle part conjoyning both Kidneys.
- d. e. f.* Three seams in the Tunicle of the Kidneys.
- G.* The *Arteria Aorta*.
- hh.* Two Arteries from the *Aorta* which afterwards are ramified into three, and so inserted into the said middle part.

I. The *Vena Cava*.

KK. Two Veins arising from the middle part which uniting into one, entered the *Vena Cava*.

L. M. A Vein and Artery arising at the Seam (*f.*) which at last are both inserted into the *Iliac* branches of the *Aorta* and *Vena Cava*.

N. N. The Emulgent Artery of both Kidneys, whose ramifications are not here represented.

O. O. The Emulgent Veins; whereof some are single, others variously ramified.

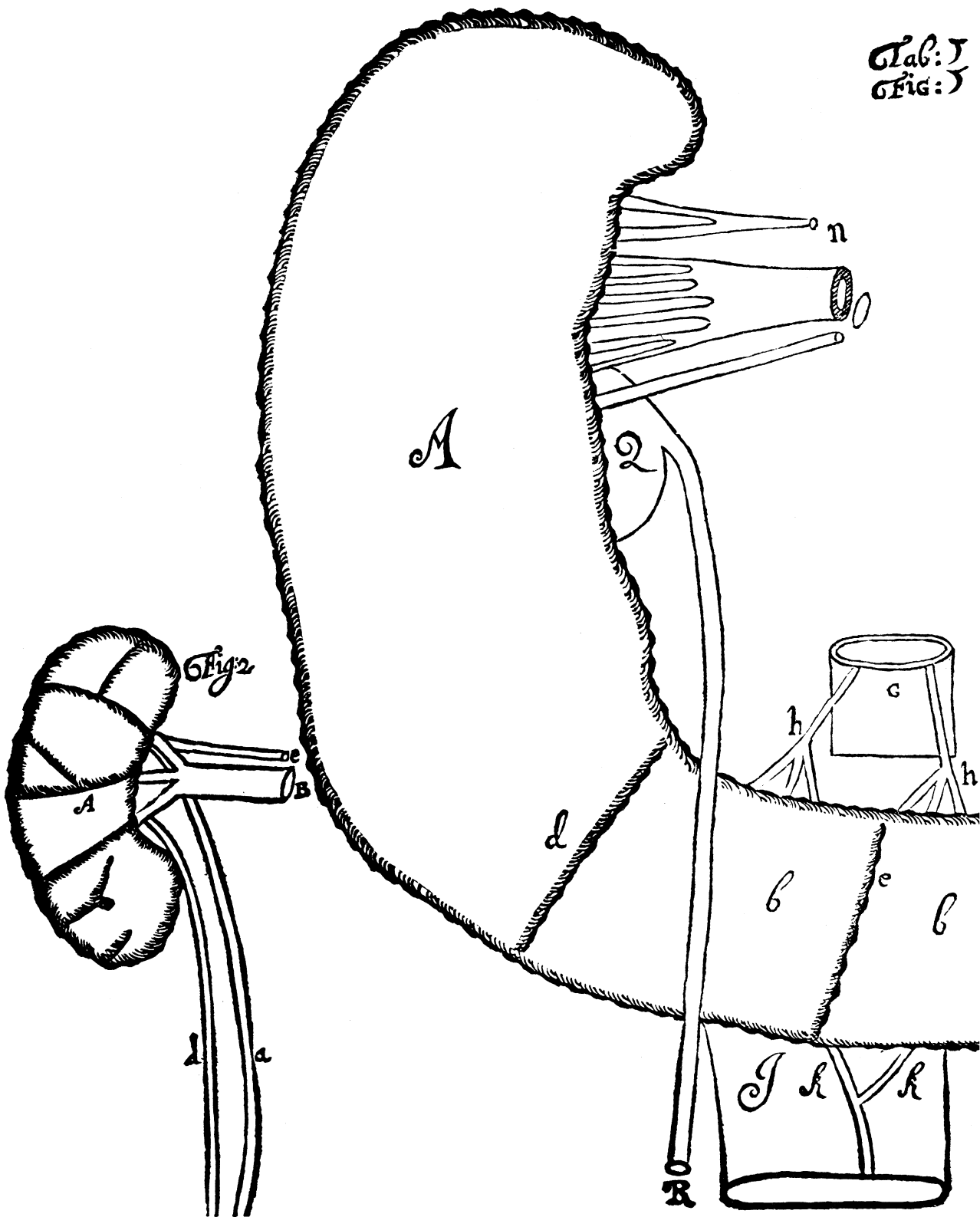
P. P. *Pelvis* of both Kidneys, that of the left was extream large.

Q. Q. The two *Ureters*.

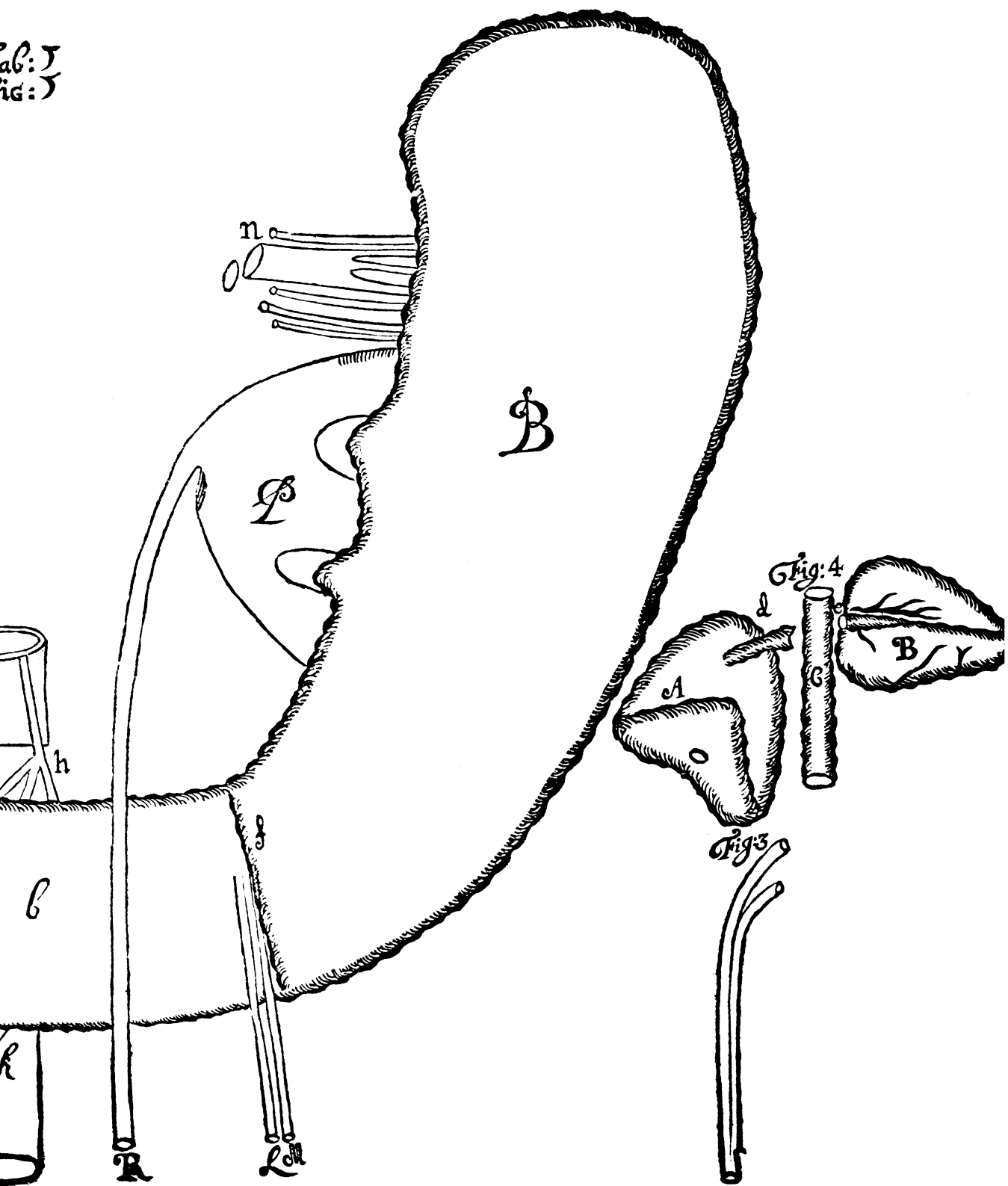
An Anatomical Observation of four Ureters in an Infant, and some remarks on the Glandulæ Renales, made by the same ingenious Person.

HAVING in the former Observation given some remarks of the unusual Structure of the Kidneys, the Emulgent Veins and *Pelvis*; I shall here add what occurred to me May 23d. 1679. upon the opening the Body of an Infant, relating to those parts, particularly of the *Ureters*; which here I found double to both Kidneys, their Origination from the Kidneys being at some distance from each other; But afterwards both of the same side were inclosed in a *Capsula* or Membrane even to the Bladder, where those of the right side were inserted severally, yet near each other, but on the left they seemed to enter at the same Orifice. I have given a Cut of the right Kidney and of both the *Glandula Renales*, as well to shew their just magnitude and figure (as they appeared in this Body) as also their proportion to each other. As far as I have hitherto observed, the *Glandula Renales* in Embryo's and Infants are greater, at least proportionably, than in *Adultis*. They have a large Cavity, which by blowing into them I found emptied themselves into two Veins; whereof the right immediately passed into the *Vena Cava*, the left into the Emulgent: besides these they had other lesser ones from the neighbouring Vessels.

Explication



Tab: J
Fig: J



Tab 2





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Fig: 5

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